What is claimed is:

1.    A computer implemented method of tracking inventories of a time period sensitive item on a time period basis, the method comprising the steps of:

establishing demand for the time period sensitive item for each time period in a time interval;

establishing a production plan for producing a source item that produces the time period sensitive item for each time period in the time interval, wherein the source item generates the time period sensitive item over various time periods in the time interval; and

reserving time period sensitive items for the established demand on a time period basis.

2    The computer implemented method according to claim 1, wherein the time period sensitive item comprises a vegetative cutting and the source item comprises a stock plant.

3.    The computer implemented method according to claim 1, wherein the time period sensitive item comprises a plug seedling and the source item comprises a seed.

4.    The computer implemented method according to claim 2, further comprising the steps of:

determining time period based availability of cuttings from the stock plants; and

determining a production period for rooted stock plant, wherein the production plan is calculated by factoring in the time period based availability of cuttings and the production period for the rooted stock plant cuttings.

5.      The computer implemented method according to claim 4, wherein the step of determining the time period based availability of cuttings from the stock plant comprises the steps of:

determining an initial production index value representing number of cuttings available per stock plant for each time period; and

adjusting the production index value for a time period based on observed or calculated parameters related to the stock plant or growth environment associated with the stock plant.


6.      The computer implemented method according to claim 5, wherein the step of determining the time period based availability of cuttings from the stock plant further comprises:

using a security factor or percentage to buffer the time period based availability of cuttings from the stock plant.


7.      The computer implemented method according to claim 2, wherein the step of reserving time period sensitive items for the established demand on a time period basis comprises:

receiving orders for the time period items; and

automatically spreading the orders to farms based on logic rules.


8.      The computer implemented method according to claim 7, wherein the step of automatically spreading order to farms based on logic rules comprises in sequence the following steps:

allocating orders to farms based on farm priorities of a sales office associated with the order;

allocating unrooted cuttings corresponding to all rooted cuttings to be rooted at a farm to that farm;

allocating orders to farms based on farm priorities of customers of the

orders;

allocating orders to a farm in a priority sequence from a smallest order to a largest order to avoid splitting the smaller orders; and

spreading production orders from the rooting stations.

9. The computer implemented method according to claim 2, wherein the step of establishing a production plan comprises correlating the stock plants to actual physical locations in a farm and specifying the variety, type, and quantity of the stock plants.

10. The computer implemented method according to claim 9, wherein the step of establishing a production plan further comprises providing a buffer to allow for variation in the yield of the cuttings from the stock plants.

11. The computer implemented method according to claim 2, further comprising the step of adjusting the production plan by verifying actual plantings of the stock plants and comparing with planned plantings of the stock plants.

12. The computer implemented method according to claim 11, further comprising the step of generating a cut list at a farm to facilitate cutting and shipping of cuttings from the stock plants.

13. The computer implemented method according to claim 12, further comprising the steps of:

receiving claims against defective cuttings; and

correlating the defective cuttings to the farms on which the cuttings were produced.

14.     The computer implemented method according to claim 4, wherein the step of determining a production period for stock plant cutting comprises determining multiple production periods for varieties of stock plant cuttings that need to be rooted.

15.     The computer implemented method according to claim 4, further comprising the step of warehousing rooted stock plant cuttings in a dormant state to vary the production period of the rooted stock plant cutting.

16.     The computer implemented method according to claim 3, wherein the step of establishing a production plan for the plug seedlings comprises coupling the production of the plug seedlings to a seed inventory for the plug seedlings.

17.     The computer implemented method according to claim 16, wherein the seed inventory comprises a combination of seed on hand and expected arrival dates of purchased seeds.

18.     The computer implemented method according to claim 16, further comprising the steps of:

calculating a quantity of an initial form of plug seedlings developed from seeds based on a desired quantity of a final form of plug seedlings; and

determining transplanting conditions that link the initial form of the plug seedlings to the final form of the plug seedlings.

19.     The computer implemented method according to claim 18, wherein the initial form of plug seedlings comprises a 288 tray and the final form of the plug seedlings comprises a 72 tray.

representing number of cuttings available per stock plant for each time period, and adjusting the production index value for a time period based on observed or calculated parameters related to the stock plant or growth environment associated with the stock plant.

25.     The inventory control method according to claim 24, wherein the farm system processing unit uses a security factor or percentage to buffer the time period based availability of cuttings from the stock plant.

26.     The inventory control system according to claim 21, wherein the main system processing unit reserves the time period sensitive items for the established demand by receiving orders from the sales system processing unit and automatically spreads the orders to the farm system processing unit based on logic rules.

27.     The inventory control system according to claim 26, wherein logic rules comprise allocating based on the following sequential rules:

allocating orders to farms based on farm priorities of a sales office associated with the order;

allocating unrooted cuttings corresponding to all rooted cuttings to be rooted at a farm to that farm;

allocating orders to farms based on farm priorities of customers of the orders;

allocating orders to a farm in a priority sequence from a smallest order to a largest order to avoid splitting the smaller orders; and

finally spreading production orders from the rooting stations.

28.     The inventory control system according to claim 21, wherein the farm system processing unit establishes the production plan to include a correlation of stock plants to actual physical locations in a farm and specifies

the variety, type, and quantity of the stock plants.

29.    The inventory control system according to claim 21, wherein the farm system processing unit is configured to receive verified actual plantings of stock plants and adjusts the production plan based on a comparison of the actual plantings to the planned plantings of the stock plants.

30.    The inventory control method according to claim 22, wherein the farm system processing unit establishes the production plan by coupling the production of the plug seedlings to a seed inventory for the plug seedlings.

31.    The inventory control system according to claim 30, wherein the farm system is configured to calculate a quantity of an initial form of plug seedlings developed from seeds based on a desired final form of the plug seedlings, and determining a transplanting schedule that links the initial form of the plug seedlings to the final form of the plug seedlings.

32.    A computer readable medium having computer program code recorded thereon, the computer program code configured to cause a computing system to perform the following steps:

establishing demand for the time period sensitive item for each time period in a time interval;

establishing a production plan for producing a source item that produces the time period sensitive item for each time period in the time interval, wherein the source item generates the time period sensitive item over various time periods in the time interval; and

reserving time period sensitive items for the established demand on a time period basis.

33.    The computer readable medium according to claim 32, wherein

the time period sensitive item comprises a vegetative cutting and the source item comprises a stock plant.

34.     The computer readable medium according to claim 32, wherein the time period sensitive item comprises a plug seedling and the source item comprises a seed.

35.     An inventory control system for tracking inventories of a time period sensitive item on a time period basis, comprising:

means for establishing demand for the time period sensitive item for each time period in a time interval;

means for establishing a production plan for producing a source item that produces the time period sensitive item for each time period in the time interval, wherein the source item generates the time period sensitive item over various time periods in the time interval; and

means for reserving time period sensitive items for the established demand on a time period basis.